

CLAIMS

1. An immature immunodeficient mammal (excluding human), into which human-derived hematopoietic precursor cells or mature hematopoietic cells have been
5 transplanted, and which is able to generate immunocompetent cells derived from said human and/or physiologically active substances derived from said immunocompetent cells.
2. An immunodeficient mammal obtained as a result of the breeding of the immature immunodeficient mammal (excluding human) according to claim 1, or a
10 progeny thereof.
3. The mammal according to claim 1 or 2, or a progeny thereof, wherein the immature immunodeficient mammal is a newborn immunodeficient mammal or a fetal immunodeficient mammal.
4. The mammal according to claim 1, or the mammal or a progeny thereof
15 according to claim 2 or 3, wherein the hematopoietic precursor cells are derived from bone marrow, cord blood, or peripheral blood.
5. The mammal according to claim 1, or the mammal or a progeny thereof according to claim 2 or 3, wherein the immunocompetent cells are at least one selected from the group consisting of B cells, T cells, dendritic cells, NK cells, and NKT cells.
- 20 6. The mammal according to claim 1, or the mammal or a progeny thereof according to claim 2 or 3, wherein the physiologically active substance is a cytokine and/or an immunoglobulin.
7. The mammal according to claim 6 or a progeny thereof, wherein the immunoglobulin is any one selected from the group consisting of IgG, IgM, IgA, IgD, and IgE.
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8. The mammal according to claim 1, or the mammal or a progeny thereof according to claim 2 or 3, wherein the immunodeficient mammal is an immunodeficient mouse.

9. A method for producing a mammal capable of generating immunocompetent cells derived from a human and/or physiologically active substances derived from said immunocompetent cells, or a progeny thereof, which is characterized in that it comprises transplantation of human-derived hematopoietic precursor cells or mature
5 hematopoietic cells into an immature immunodeficient mammal (excluding said human).
10. The method according to claim 9, wherein the immature immunodeficient mammal is a newborn immunodeficient mammal or a fetal immunodeficient mammal.
11. The method according to claim 9, wherein the hematopoietic precursor cells
10 are derived from bone marrow, cord blood, or peripheral blood.
12. The method according to claim 9, wherein the immunocompetent cells are at least one selected from the group consisting of B cells, T cells, dendritic cells, NK cells, and NKT cells.
13. The method according to claim 9, wherein the physiologically active
15 substance is a cytokine and/or an immunoglobulin.
14. The method according to claim 13, wherein the immunoglobulin is any one selected from the group consisting of IgG, IgM, IgA, IgD, and IgE.
15. The method according to claim 9, wherein the immunodeficient mammal is an immunodeficient mouse.
- 20 16. A method for producing a human-derived antibody, which is characterized in that it comprises recovering immunocompetent cells from the mammal according to claim 1, or the mammal or a progeny thereof according to any one of claims 2 to 8, culturing said immunocompetent cells in the presence of an antigen or a stimulator, and collecting said human-derived antibody from the obtained culture product.
- 25 17. The method according to claim 16, wherein the immunocompetent cells are at least one selected from the group consisting of B cells, T cells, dendritic cells, NK cells, and NKT cells.
18. A method for producing a human-derived antibody, which is characterized in

that it comprises immunizing the mammal according to claim 1, or the mammal or a progeny thereof according to any one of claims 2 to 8, with an antigen or a stimulator, and collecting said human-derived antibody from the immunized mammal.

19. The method according to claim 18, wherein the antibody is collected from blood plasma or serum.

20. A disease-model mammal, which is produced by administering to the mammal according to claim 1, or the mammal or a progeny thereof according to any one of claims 2 to 8, any one selected from the group consisting of bacteria, viruses, tumor cells, and tumor antigen peptides, or a progeny thereof.

21. The mammal according to claim 20 or a progeny thereof, wherein the disease is an infectious disease.

22. A method for screening for an immune-related pharmaceutical, which is characterized in that it comprises administering a test substance to the mammal according to claim 1, or the mammal or a progeny thereof according to any one of claims 2 to 8, 20, and 21, and evaluating the effectiveness of the test substance.

23. The method according to claim 22, wherein the immune-related pharmaceutical is a vaccine.

24. A method for producing immunocompetent cells, which is characterized in that it comprises recovering said immunocompetent cells from the mammal according to claim 1, or the mammal or a progeny thereof according to any one of claims 2 to 8.

25. An immunocompetent cell recovered from the mammal according to claim 1, or the mammal or a progeny thereof according to any one of claims 2 to 8.

26. A vaccine comprising the immunocompetent cell according to claim 25.

27. A method for producing immunocompetent cells, which is characterized in that it comprises recovering said immunocompetent cells from the mammal according to claim 20 or a progeny thereof.

28. An immunocompetent cell recovered from the mammal according to claim 20 or a progeny thereof.

29. A vaccine comprising the immunocompetent cell according to claim 28.

30. A human-derived antibody recovered from the mammal according to claim 1, or the mammal or a progeny thereof according to any one of claims 2 to 8.

31. A human-derived antibody collected from a culture product obtained by
5 culturing the immunocompetent cell according to claim 25 or 28 in the presence of an antigen or a stimulator.

32. A human-derived antibody recovered from the mammal according to claim 20 or a progeny thereof.

33. A vaccine comprising the human-derived antibody according to claim 32.